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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Shinya Adachi et al.

Serial No.: 10/075,208

Filed: February 14, 2002

Title: "METHOD FOR TRANSMITTING LOCATION INFORMATION ON A
DIGITAL MAP, APPARATUS FOR IMPLEMENTING THE METHOD
AND TRAFFIC INFORMATION PROVISION/RECEPTION SYSTEM"

Docket No.: 34409

PETITION TO MAKE SPECIAL UNDER 37 C.F.R. § 1.102(d)

Commissioner of Patents
Washington, D.C. 20231

Sir:

Applicant hereby petitions that the above-identified application be made special under 37 C.F.R. § 1.102(d) and MPEP § 708.02, VIII, Special Examining Procedure For Certain New Applications – Accelerated Examination. The application has not received any examination by an Examiner.

08/28/2002 MWOLDER1 00000049 10075208

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Washington D.C. 20231 on the date indicated below.

Suzanne B. Gagnon

Name of Attorney for Applicant(s)

August 20, 2002

Date

Signature of Attorney

The following are submitted herewith:

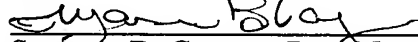
- a) A check for \$130 to cover the petition fee (37 CFR §1.17(h));
- b) A statement that a preexamination search was performed, a listing and discussion of the field of search, and a detailed discussion of the most relevant uncovered references pointing out how the claimed invention is patentable over those references; and
- c) An Information Disclosure Statement, associated form PTO-1449, and references cited therein.

All the claims in the above-captioned patent application are drawn to a single invention.

If there are any additional fees resulting from this communication not covered by the enclosed check, or if the check was omitted, please charge all uncovered fees to our Deposit Account No. 16-0820, our Order No. 34409.

Respectfully submitted,

PEARNE & GORDON LLP

By: 
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August 20, 2002



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**STATEMENT AND DISCUSSION REGARDING PREEXAMINATION SEARCH,
AND DISCUSSION OF MOST RELEVANT UNCOVERED REFERENCES
IN SUPPORT OF PETITION TO MAKE SPECIAL**

Commissioner of Patents
Washington, D.C. 20231

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Sir:

Applicant hereby submits the following statement and discussion:

PREEXAMINATION SEARCH

A preexamination search was conducted, in compliance with MPEP 708.02, VIII.
Special Examining Procedure For Certain New Applications – Accelerated Examination.

An initial search covered the following International Patent Classifications:

G 08 G - Traffic control systems (search inclusive of all subclasses),

G 09 B - Educational or demonstration appliances; appliances for teaching, or communicating with, the blind, deaf or mute; models; planetaria; globes; maps; diagrams (search inclusive of all subclasses), and

G 01 C - Measuring distances, levels, or bearings; surveying; navigation; gyroscopic instruments; photogrammetry (search inclusive of all subclasses).

This search area covered 12,004 publications.

Within this search area, the search was narrowed to publications containing various combinations of the following keywords in their abstracts: "road," "traffic," "map," "atlas," "transportation," "car," "vehicle," "position," "location," "reference," "route," "calculation," and "information." A search was also conducted within the above-mentioned search area being limited to publications in which "BOSCH" is listed as the patentee.

A list of the actual search sets is enclosed herewith as "Exhibit A". A total of 120 potentially relevant references were discovered in this search.

A further search was conducted covering the following International Patent Classifications:

G 08 G 001/0969 - Traffic control systems for road vehicles . Arrangements for giving variable traffic instructions (indicating arrangements for variable information by selection or combination of individual elements . . provided with indicators in which a mark progresses showing the time elapsed, e.g. of green phase . . . Systems involving transmission of navigation instructions to the vehicle . . . having a display in the form of a map,

G 09 B 029/00 - Maps; Plans; Charts; Diagrams, e.g. route diagram,

G 09 B 029/10 - Map spot or co-ordinate position indicators; Map-reading aids, and

G 01 C 021/00 - Navigation; Navigational instruments not provided for in preceding groups.

This second search area covered 11,133 publications.

Within this second search area, the search was narrowed using various keywords and patentees. A detailed explanation of this search is enclosed herewith as "Exhibit B."

Prior to these searches, applicant was aware of additional references, which are cited in an Information Disclosure Statement (IDS).

DISCUSSION OF MOST RELEVANT REFERENCE(S)

The party conducting the search has determined that the following uncovered references appears to be the most relevant to the subject invention: English abstract of WO 00/08616 (hereinafter "'616'"), English abstract of WO 01/18769 A1 (hereinafter "'769'"), and US 6,324,468 (hereinafter "'468'"). Thus, these references will be discussed with regard to patentability of the present claims. Each of these references is cited in the IDS.

The present invention is directed as in claim 1 to a location information transmission method for reporting on-road location on a digital map and as in claim 4 to a location information transmission apparatus for exchanging information about the on-road location on a digital map.

The method of the present invention, as set forth in independent claim 1, comprises the steps of:

- (1) an information provider transmitting on-road location information by using (a) road shape data including the on-road location information consisting of a string of coordinates representing the road shape of a road section having a length that depends on the situation and (b) relative data indicating the on-road location in the road section; and
- (2) a party receiving the on-road location information, performing shape matching to identify the road section on the digital map and using the relative data to identify the on-road location in the road section.

The apparatus of the present invention, as set forth in independent claim 4, comprises:

- (1) the apparatus at an information provider comprises a location information converter for converting transmit on-road location information to (a) road shape data including the on-road location consisting of a string of coordinates representing the road shape of a road section having a length that depends on the situation and (b) relative data indicating the on-road location in the road section; and
- (2) the apparatus at a party receiving the on-road location information comprises a shape matching section for performing shape matching by using the road shape data, identifying said road section on a digital map and identifying the on-road location in the road section by using the relative data.

The '616 abstract discloses a device for coding and decoding of a location in a traffic lane network where the information is transmitted from a transmitter to a receiver. According

to the '616 abstract, the code contains several pairs of coordinates representing the coordinates of the coded location and at least one additional point. When decoding, positions within the tolerance range for the pairs of coordinates are determined from a database, then positions on the same traffic lane are selected from the tolerance range positions, and finally the location within the tolerance range of a specific pair of coordinates from the traffic lane positions is defined as the decoded location.

The '616 abstract does not disclose a string of coordinates representing the road shape of a road section having a length that depends on the situation as set forth in claims 1 and 4. The '616 abstract also does not disclose performing shape matching to identify the road section on a digital map as recited in claim 1 or a shape matching section for performing shape matching by using the road shape data recited in claim 4. Since each of the limitations of the claim are not disclosed by the prior art, claims 1 and 4 and their corresponding dependent claims are patentable over the '616 abstract.

The '769 abstract discloses a method for transmitting road traffic data of transmitting coordinates of locations that are at least partially on traffic routes stored in a database and that contain specific characteristics of parts of the traffic route. The '769 abstract does not disclose a string of coordinates representing the road shape of a road section having a length that depends on the situation as set forth in claims 1 and 4. The '769 abstract also does not disclose performing shape matching to identify the road section on a digital map as recited in claim 1 or a shape matching section for performing shape matching by using the road shape data recited in claim 4. Since each of the limitations of the claim are not disclosed by the prior art, claims 1 and 4 and their corresponding dependent claims are patentable over the '769 abstract.

The '468 patent discloses a central traffic station that transmits route information to a vehicle. According to the '468 patent, the route information consists of turning points, which can be transmitted in the form of geographic coordinates and which are displayed on a terminal unit in the vehicle. The '468 patent does not disclose a string of coordinates representing the road shape of a road section having a length that depends on the situation as set forth in claims 1 and 4. The '468 patent also does not disclose performing shape matching to identify the road section on a digital map as recited in claim 1 or a shape matching section for performing shape matching by using the road shape data recited in claim 4. Since each of the limitations of the claim are not disclosed by the prior art, claims 1 and 4 and their corresponding dependent claims are patentable over the '468 patent.

If there are any additional fees resulting from this communication not covered by the enclosed check, or if the check was omitted, please charge all uncovered fees to our Deposit Account No. 16-0820, our Order No. 34409.

Respectfully submitted,

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